

# SEQUENCE LISTING

<110> Samuel M. Owens  
 Frank I. Carroll  
 Philip Abraham  
 Melinda G. Gunnell  
 Mary Haak-Frendscho  
 Xiao Feng

<120> ANTIBODIES AGAINST DRUGS OF ABUSE

<130> ABGENIX.071A

<140> Unknown

<141> 2003-12-03

<150> 60/430717

<151> 2002-12-02

<160> 141

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 131

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 101, 102, 103, 109, 110, 111

<223> Xaa = Any Amino Acid

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Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		
Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35				40						45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Thr	Asp	Tyr	Ala	Ala
	50				55					60					
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70				75					80	
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
			85					90						95	
Tyr	Cys	Thr	Thr	Xaa	Xaa	Xaa	Cys	Ser	Gly	Gly	Ser	Xaa	Xaa	Xaa	Tyr
			100				105					110			
Tyr	Tyr	Tyr	Gly	Met	Asp	Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val
		115					120					125			
Ser	Ser	Ala													
		130													

<210> 2

<211> 131  
 <212> PRT  
 <213> Mus musculus

<400> 2  
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
 1 5 10 15  
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asn Ala  
 20 25 30  
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45  
 Gly Arg Ile Lys Ser Lys Ile Asp Gly Gly Thr Thr Asp Tyr Ala Ala  
 50 55 60  
 Pro Val Lys Gly Arg Phe Thr Met Ser Arg Asp Asp Ser Lys Asn Thr  
 65 70 75 80  
 Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr  
 85 90 95  
 Tyr Cys Thr Thr Asp Glu Asp Cys Ser Gly Gly Ser Cys Phe Phe Tyr  
 100 105 110  
 His Tyr Tyr Leu Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val  
 115 120 125  
 Ser Ser Ala  
 130

<210> 3  
 <211> 128  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 99, 100, 112  
 <223> Xaa = Any Amino Acid

<400> 3  
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg  
 1 5 10 15  
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30  
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45  
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val  
 50 55 60  
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr  
 65 70 75 80  
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Arg Xaa Xaa Tyr Asp Tyr Val Trp Gly Ser Tyr Arg Tyr Thr Xaa  
 100 105 110  
 Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala  
 115 120 125

<210> 4  
 <211> 128  
 <212> PRT

<213> Mus musculus

<400> 4

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Ser	Phe	Ile	Asn	Tyr
			20					25					30		
Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Val	Ile	Trp	Asn	Asp	Gly	Arg	Ser	Lys	Tyr	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Gly
65					70				75					80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Ala	Arg	Glu	Asp	Tyr	Asp	Tyr	Ile	Trp	Glu	Ser	Phe	Pro	Tyr	Thr	Gly
			100					105					110		
Ala	Phe	Asp	Ile	Trp	Gly	Gln	Gly	Thr	Met	Val	Thr	Val	Ser	Ser	Ala
		115					120					125			

<210> 5

<211> 128

<212> PRT

<213> Mus musculus

<400> 5

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr
			20					25					30		
Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Val	Ile	Trp	Asn	Asp	Gly	Ser	Tyr	Lys	Tyr	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70				75					80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Val	Arg	Glu	Asp	Tyr	Asp	Tyr	Asp	Trp	Met	Ile	Asp	Arg	Tyr	Thr	Gly
			100					105					110		
Ala	Phe	Asp	Leu	Trp	Gly	Gln	Gly	Thr	Met	Val	Thr	Val	Ser	Ser	Ala
		115					120					125			

<210> 6

<211> 127

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 97, 98, 99, 106, 107

<223> Xaa = Any Amino Acid

<400> 6

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

1	5	10	15
Ser Leu Arg	Leu Ser Cys Ala Ala	Ser Gly Phe Thr Phe	Ser Ser Tyr
	20	25	30
Ala Met Ser	Trp Val Arg Gln Ala	Pro Gly Lys Gly Leu Glu	Trp Val
	35	40	45
Ser Ala Ile	Ser Gly Ser Gly Gly	Ser Thr Tyr Tyr Ala	Asp Ser Val
	50	55	60
Lys Gly Arg	Phe Thr Ile Ser Arg	Asp Asn Ser Lys Asn Thr	Leu Tyr
65	70	75	80
Leu Gln Met	Asn Ser Leu Arg Ala	Glu Asp Thr Ala Val Tyr	Tyr Cys
	85	90	95
Xaa Xaa Xaa	Val Asp Ile Val Ala	Thr Xaa Xaa Tyr Tyr Tyr	Tyr Gly
	100	105	110
Met Asp Val	Trp Gly Gln Gly Thr	Thr Val Thr Val Ser	Ser Ala
	115	120	125

<210> 7  
 <211> 127  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 97, 98  
 <223> Xaa = Any Amino Acid

<400> 7
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Val Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60
Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Xaa Xaa His Val Asp Ile Val Ala Thr Met Ala Tyr Phe Asp Tyr Val
100 105 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala
115 120 125

<210> 8  
 <211> 126  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 101, 112  
 <223> Xaa = Any Amino Acid

<400> 8

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		
Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Thr	Asp	Tyr	Ala	Ala
	50					55					60				
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70				75					80	
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
				85					90					95	
Tyr	Cys	Thr	Thr	Xaa	Met	Ile	Thr	Phe	Gly	Gly	Val	Ile	Val	Ile	Xaa
			100					105					110		
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala		
		115					120					125			

<210> 9  
 <211> 126  
 <212> PRT  
 <213> Mus musculus

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		
Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Thr	Asp	Tyr	Ala	Ala
	50					55					60				
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70				75					80	
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
				85					90					95	
Tyr	Cys	Thr	Thr	Glu	Met	Ile	Thr	Phe	Gly	Gly	Val	Ile	Val	Ile	Pro
			100					105					110		
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala		
		115					120					125			

<210> 10  
 <211> 126  
 <212> PRT  
 <213> Mus musculus

<220>  
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 <222> 101  
 <223> Xaa = Any Amino Acid

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		

Leu	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
	35						40					45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Ile	Asp	Tyr	Ala	Ala
	50					55					60				
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70					75					80
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
				85					90					95	
Tyr	Cys	Thr	Thr	Xaa	Met	Ile	Thr	Phe	Gly	Gly	Val	Ile	Val	Ile	Pro
			100					105					110		
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala		
		115					120					125			

<210> 11  
 <211> 126  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 112  
 <223> Xaa = Any Amino Acid

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		
Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Ile	Asp	Tyr	Val	Ala
	50					55					60				
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70					75					80
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
				85					90					95	
Tyr	Cys	Thr	Thr	Glu	Val	Ile	Thr	Phe	Gly	Gly	Ile	Ile	Val	Asp	Xaa
			100					105					110		
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala		
		115					120					125			

<210> 12  
 <211> 124  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 99, 100, 106, 107, 108  
 <223> Xaa = Any Amino Acid

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr



Ala	Arg	Asp	Gly	Gly	Ile	Ala	Val	Ala	Asp	Pro	Tyr	Tyr	Phe	Asp	Tyr
			100					105					110		
Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala				
		115					120								

<210> 15  
 <211> 124  
 <212> PRT  
 <213> Mus musculus

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Asn	Thr	Tyr
			20					25					30		
Val	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Val	Ile	Trp	Tyr	Asp	Gly	Ser	Asn	Lys	Lys	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Ala	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70					75				80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85						90					95	
Ala	Arg	Asp	Gly	Gly	Arg	Thr	Val	Ala	Asp	Pro	Tyr	Tyr	Phe	Asp	Tyr
			100					105					110		
Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala				
		115					120								

<210> 16  
 <211> 124  
 <212> PRT  
 <213> Mus musculus

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Asn	Thr	Tyr
			20					25					30		
Val	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Val	Ile	Trp	Tyr	Asp	Gly	Ser	Asn	Lys	Lys	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Ala	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70					75				80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85						90					95	
Ala	Arg	Asp	Gly	Gly	Arg	Thr	Val	Ala	Asp	Pro	Tyr	Tyr	Phe	Asp	Tyr
			100					105					110		
Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala				
		115					120								

<210> 17  
 <211> 125  
 <212> PRT



<213> Mus musculus

<220>

<221> VARIANT

<222> 98, 99, 100, 101, 102, 104, 105

<223> Xaa = Any Amino Acid

<400> 17

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly	
1				5				10						15		
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr	
			20					25					30			
Ser	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val	
		35					40					45				
Ser	Ser	Ile	Ser	Ser	Ser	Ser	Ser	Tyr	Ile	Tyr	Tyr	Ala	Asp	Ser	Val	
	50					55					60					
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Ser	Leu	Tyr	
65					70				75						80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
			85						90					95		
Ala	Xaa	Xaa	Xaa	Xaa	Xaa	Gly	Xaa	Xaa	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp	
			100					105					110			
Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Ala				
		115					120					125				

<210> 18

<211> 125

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 98

<223> Xaa = Any Amino Acid

<400> 18

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly	
1				5				10						15		
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr	
			20					25					30			
Thr	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val	
		35					40					45				
Ser	Ser	Ile	Ser	Ser	Ser	Ser	Ser	Tyr	Ile	Tyr	Tyr	Ala	Asp	Ser	Val	
	50					55					60					
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Ser	Leu	Tyr	
65					70				75						80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
			85						90					95		
Ala	Xaa	Asp	Gly	Gly	Ile	Gly	Phe	Tyr	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp	
			100					105					110			
Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Ala				
		115					120					125				

<210> 19

<211> 125

<212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 98, 101, 102, 104  
 <223> Xaa = Any Amino Acid

<400> 19  
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
 1 5 10 15  
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30  
 Cys Met Asn Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45  
 Ser Ser Ile Ser Ser Ser Ser Tyr Tyr Ile Tyr Tyr Ala Asp Ser Val  
 50 55 60  
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr  
 65 70 75 80  
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Xaa Asp Ile Xaa Xaa Gly Xaa Gly Gly Asp Tyr Tyr Gly Met Asp  
 100 105 110  
 Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala  
 115 120 125

<210> 20  
 <211> 126  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 99, 100, 101, 102, 103, 104, 105  
 <223> Xaa = Any Amino Acid

<400> 20  
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly  
 1 5 10 15  
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30  
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45  
 Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val  
 50 55 60  
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr  
 65 70 75 80  
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Tyr Tyr Tyr Tyr Gly Met  
 100 105 110  
 Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala  
 115 120 125

<210> 21

<211> 126  
 <212> PRT  
 <213> Mus musculus

<400> 21  
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly  
 1 5 10 15  
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30  
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45  
 Ser Ser Ile Ser Gly Ser Gly Ala Tyr Thr Tyr Tyr Ala Asp Ser Val  
 50 55 60  
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr  
 65 70 75 80  
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Lys Asp Leu Gly Glu Asp Glu Asp Tyr Tyr Asp Tyr Tyr Gly Val  
 100 105 110  
 Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala  
 115 120 125

<210> 22  
 <211> 113  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 100, 101, 102  
 <223> Xaa = Any Amino Acid

<400> 22  
 Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly  
 1 5 10 15  
 Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser  
 20 25 30  
 Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro  
 35 40 45  
 Pro Arg Leu Leu Ile Tyr Lys Ile Ser Asn Arg Phe Ser Gly Val Pro  
 50 55 60  
 Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile  
 65 70 75 80  
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala  
 85 90 95  
 Thr Gln Phe Xaa Xaa Xaa Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys  
 100 105 110  
 Arg

<210> 23  
 <211> 113  
 <212> PRT  
 <213> Mus musculus

<400> 23

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly  
1 5 10 15  
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Asn  
20 25 30  
Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro  
35 40 45  
Pro Arg Leu Leu Ile Tyr Lys Ile Ser Tyr Arg Phe Ser Gly Val Pro  
50 55 60  
Asp Arg Phe Thr Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile  
65 70 75 80  
Ser Arg Val Glu Pro Glu Asp Val Gly Ile Tyr Tyr Cys Ile Gln Thr  
85 90 95  
Thr Gln Phe Pro Cys Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys  
100 105 110  
Arg

<210> 24

<211> 113

<212> PRT

<213> Mus musculus

<400> 24

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly  
1 5 10 15  
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu His Ser  
20 25 30  
Asp Gly Lys Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Pro  
35 40 45  
Pro Gln Leu Leu Ile Tyr Glu Val Ser Asn Arg Phe Ser Gly Val Pro  
50 55 60  
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
65 70 75 80  
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser  
85 90 95  
Ile Gln Leu Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys  
100 105 110  
Arg

<210> 25

<211> 113

<212> PRT

<213> Mus musculus

<400> 25

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly  
1 5 10 15  
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser  
20 25 30  
Asp Gly Glu Thr Cys Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Pro  
35 40 45  
Pro Gln Leu Leu Ile Tyr Glu Val Ser Asn Arg Phe Ser Gly Val Pro  
50 55 60

Tyr	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ser
			85						90					95	
Ile	Gln	Leu	Pro	Ile	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys
			100					105					110		

Arg

<210> 26  
 <211> 113  
 <212> PRT  
 <213> Mus musculus

<400> 26

Asp	Ile	Val	Leu	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Ser	Val	Thr	Pro	Gly
1				5					10					15	
Gln	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Thr	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		
Asp	Gly	Glu	Thr	Cys	Leu	His	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Pro
		35					40					45			
Pro	Gln	Leu	Leu	Ile	Tyr	Glu	Val	Ser	Tyr	Gln	Phe	Ser	Gly	Val	Pro
		50				55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ser
			85						90					95	
Ile	Gln	Arg	Pro	Ile	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys
			100					105					110		

Arg

<210> 27  
 <211> 109  
 <212> PRT  
 <213> Mus musculus

<400> 27

Glu	Ile	Val	Leu	Thr	Gln	Ser	Pro	Gly	Thr	Leu	Ser	Leu	Ser	Pro	Gly
1				5					10					15	
Glu	Arg	Ala	Thr	Leu	Ser	Cys	Arg	Ala	Ser	Gln	Ser	Val	Ser	Ser	Ser
			20					25					30		
Tyr	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Leu	Leu
		35					40					45			
Ile	Tyr	Gly	Ala	Ser	Ser	Arg	Ala	Thr	Gly	Ile	Pro	Asp	Arg	Phe	Ser
		50				55					60				
Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Arg	Leu	Glu
65					70					75					80
Pro	Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Tyr	Gly	Ser	Ser	Pro
			85						90					95	
Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg			
			100					105							

<210> 28

<211> 109  
 <212> PRT  
 <213> Mus musculus

<400> 28  
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly  
 1 5 10 15  
 Glu Arg Ala Ser Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser  
 20 25 30  
 Tyr Leu Ala Trp Tyr Gln His Lys Pro Gly Gln Ala Pro Arg Leu Leu  
 35 40 45  
 Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser  
 50 55 60  
 Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu  
 65 70 75 80  
 Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro  
 85 90 95  
 Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Val Lys Arg  
 100 105

<210> 29  
 <211> 112  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 101  
 <223> Xaa = Any Amino Acid

<400> 29  
 Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly  
 1 5 10 15  
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser  
 20 25 30  
 Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
 35 40 45  
 Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro  
 50 55 60  
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
 65 70 75 80  
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala  
 85 90 95  
 Leu Gln Thr Pro Xaa Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg  
 100 105 110

<210> 30  
 <211> 112  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 101  
 <223> Xaa = Any Amino Acid

<400> 30

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5					10					15	
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Leu	His	Arg
			20					25					30		
Asn	Gly	Tyr	Asn	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
		35					40					45			
Pro	Gln	Leu	Leu	Ile	Tyr	Leu	Gly	Ser	Asn	Arg	Ala	Ser	Gly	Val	Pro
	50					55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Phe	Tyr	Tyr	Cys	Met	Gln	Ala
				85					90					95	
Leu	Gln	Thr	Pro	Xaa	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg
			100					105						110	

<210> 31

<211> 113

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 100, 101

<223> Xaa = Any Amino Acid

<400> 31

Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Ser	Val	Thr	Pro	Gly
1				5					10					15	
Gln	Pro	Ala	Ser	Ile	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		
Asp	Gly	Lys	Thr	Tyr	Leu	Tyr	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Pro
		35					40					45			
Pro	Gln	Leu	Leu	Ile	Tyr	Glu	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ser
				85					90					95	
Ile	Gln	Leu	Xaa	Xaa	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105						110	

Arg

<210> 32

<211> 113

<212> PRT

<213> Mus musculus

<400> 32

Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Thr	Val	Thr	Pro	Gly
1				5					10					15	
Gln	Pro	Ala	Ser	Ile	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		

Asp	Gly	Lys	Thr	Tyr	Leu	Tyr	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Pro
		35					40				45				
Pro	Gln	Phe	Leu	Ile	Tyr	Glu	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ser
				85					90					95	
Ile	Gln	Phe	Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105					110		

Arg

<210> 33  
 <211> 113  
 <212> PRT  
 <213> Mus musculus

<400> 33

Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Ser	Val	Thr	Pro	Gly
1				5					10					15	
Gln	Pro	Ala	Ser	Ile	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		
Asp	Gly	Lys	Thr	Tyr	Leu	Tyr	Trp	Tyr	Leu	Gln	Arg	Pro	Gly	Gln	Pro
		35					40					45			
Pro	Gln	Phe	Leu	Ile	Tyr	Glu	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Ile	Tyr	Tyr	Cys	Met	Gln	Ser
				85					90					95	
Ile	Gln	Leu	Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Leu	Lys
			100					105					110		

Arg

<210> 34  
 <211> 113  
 <212> PRT  
 <213> Mus musculus

<400> 34

Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Ser	Val	Thr	Pro	Gly
1				5					10					15	
Gln	Pro	Ala	Ser	Ile	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		
Asp	Gly	Lys	Thr	Tyr	Leu	Tyr	Trp	Tyr	Leu	Gln	Arg	Pro	Gly	Gln	Pro
		35					40					45			
Pro	Gln	Phe	Leu	Ile	Tyr	Glu	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ser
				85					90					95	
Ile	Gln	Leu	Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Val	Lys





Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Thr	Ser	Gln	Gly	Ile	Asn	Asn	Tyr
		20					25					30			
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Lys	Leu	Leu	Ile
	35					40					45				
Tyr	Ala	Ala	Ser	Thr	Leu	Arg	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50				55					60					
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro
65				70					75					80	
Glu	Asp	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Lys	Tyr	Asn	Ser	Ala	Pro	Trp
		85						90					95		
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg				
		100						105							

<210> 38  
 <211> 108  
 <212> PRT  
 <213> Mus musculus

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly	Ile	Ser	Asn	Tyr
		20					25					30			
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Lys	Leu	Leu	Ile
	35					40					45				
Tyr	Ala	Ala	Ser	Thr	Leu	Gln	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50				55					60					
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro
65				70					75					80	
Glu	Asp	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Lys	Tyr	Asn	Ser	Ala	Pro	Trp
		85						90					95		
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg				
		100						105							

<210> 39  
 <211> 108  
 <212> PRT  
 <213> Mus musculus

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly	Ile	Ser	Asn	Tyr
		20					25					30			
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Glu	Leu	Leu	Ile
	35					40					45				
Tyr	Ala	Ala	Ser	Thr	Leu	Gln	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50				55					60					
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro
65				70					75					80	
Glu	Asp	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Lys	Tyr	Asp	Ser	Ala	Pro	Trp
		85						90					95		
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg				

100

105

<210> 40  
 <211> 108  
 <212> PRT  
 <213> Mus musculus

<400> 40  
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
 1 5 10 15  
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr  
 20 25 30  
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile  
 35 40 45  
 Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro  
 65 70 75 80  
 Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Phe  
 85 90 95  
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg  
 100 105

<210> 41  
 <211> 108  
 <212> PRT  
 <213> Mus musculus

<400> 41  
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
 1 5 10 15  
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Asp  
 20 25 30  
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ile Pro Asn Leu Leu Ile  
 35 40 45  
 Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Ser Leu Gln Pro  
 65 70 75 80  
 Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Phe  
 85 90 95  
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg  
 100 105

<210> 42  
 <211> 112  
 <212> PRT  
 <213> Mus musculus

<220>  
 <221> VARIANT  
 <222> 99, 100  
 <223> Xaa = Any Amino Acid

<400> 42

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly  
1 5 10 15  
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser  
20 25 30  
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
35 40 45  
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro  
50 55 60  
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
65 70 75 80  
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala  
85 90 95  
Leu Gln Xaa Xaa Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg  
100 105 110

<210> 43

<211> 112

<212> PRT

<213> Mus musculus

<400> 43

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly  
1 5 10 15  
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser  
20 25 30  
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
35 40 45  
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro  
50 55 60  
Asp Arg Phe Ser Gly Ser Glu Ser Asp Thr Asp Phe Thr Leu Lys Ile  
65 70 75 80  
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala  
85 90 95  
Leu Gln Ser Pro Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg  
100 105 110

<210> 44

<211> 13

<212> DNA

<213> Mus musculus

<400> 44

aagacggggg cat

13

<210> 45

<211> 20

<212> DNA

<213> Mus musculus

<400> 45

gtggatatag tggctacgat

20

<210> 46

<211> 17

<212> DNA  
 <213> Mus musculus  
  
 <400> 46  
 gggatatagca gtggctg 17  
  
 <210> 47  
 <211> 19  
 <212> DNA  
 <213> Mus musculus  
  
 <400> 47  
 attgtagtgg tggtagctg 19  
  
 <210> 48  
 <211> 25  
 <212> DNA  
 <213> Mus musculus  
  
 <400> 48  
 tgattacgtt tgggggaatt atcgt 25  
  
 <210> 49  
 <211> 35  
 <212> DNA  
 <213> Mus musculus  
  
 <400> 49  
 attatgatta cgattggatg attgatcgtt atacc 35  
  
 <210> 50  
 <211> 17  
 <212> DNA  
 <213> Mus musculus  
  
 <400> 50  
 gggtagaaca gtggctg 17  
  
 <210> 51  
 <211> 32  
 <212> DNA  
 <213> Mus musculus  
  
 <400> 51  
 atgattacgt ttgggggagt tatcgttata cc 32  
  
 <210> 52  
 <211> 35  
 <212> DNA  
 <213> Mus musculus  
  
 <400> 52  
 attatgatta catttgggag agttttcctt atacc 35  
  
 <210> 53  
 <211> 17  
 <212> DNA

<213> Mus musculus  
 <400> 53  
 gggtagaaca gtggctg 17  
 <210> 54  
 <211> 17  
 <212> DNA  
 <213> Mus musculus  
 <400> 54  
 gggtagaaca gtggctg 17  
 <210> 55  
 <211> 33  
 <212> DNA  
 <213> Mus musculus  
 <400> 55  
 tatgattacg tttgggggag ttatcgttat acc 33  
 <210> 56  
 <211> 13  
 <212> DNA  
 <213> Mus musculus  
 <400> 56  
 cagtggcggg tac 13  
 <210> 57  
 <211> 17  
 <212> DNA  
 <213> Mus musculus  
 <400> 57  
 tctaggtgag gatgagg 17  
 <210> 58  
 <211> 10  
 <212> PRT  
 <213> Mus musculus  
 <400> 58  
 Gly Phe Thr Phe Ser Asn Tyr Ala Met Ser  
 1 5 10  
 <210> 59  
 <211> 10  
 <212> PRT  
 <213> Mus musculus  
 <400> 59  
 Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser  
 1 5 10

<210> 60  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 60  
Gly Phe Thr Phe Ser Ser Tyr Gly Met His  
1 5 10

<210> 61  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 61  
Gly Phe Thr Phe Asn Asn Ala Trp Met Ser  
1 5 10

<210> 62  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 62  
Gly Phe Thr Phe Ser Asn Ala Trp Met Ser  
1 5 10

<210> 63  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 63  
Gly Phe Thr Phe Ser Ser Tyr Gly Met His  
1 5 10

<210> 64  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 64  
Gly Phe Thr Phe Asn Thr Tyr Val Met His  
1 5 10

<210> 65  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 65  
Gly Phe Thr Phe Ser Asn Ala Trp Met Ser

1 5 10

<210> 66  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 66  
Gly Phe Ser Phe Ile Asn Tyr Gly Met His  
1 5 10

<210> 67  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 67  
Gly Phe Thr Phe Asn Thr Tyr Val Met His  
1 5 10

<210> 68  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 68  
Gly Phe Thr Phe Asn Thr Tyr Val Met His  
1 5 10

<210> 69  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 69  
Gly Phe Thr Phe Ser Asn Ala Leu Met Ser  
1 5 10

<210> 70  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 70  
Gly Phe Thr Phe Ser Ser Tyr Thr Met Asn  
1 5 10

<210> 71  
<211> 10  
<212> PRT  
<213> Mus musculus



<400> 71

Gly Phe Thr Phe Ser Ser Tyr Cys Met Asn  
1 5 10

<210> 72

<211> 17

<212> PRT

<213> Mus musculus

<400> 72

Val Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val Arg  
1 5 10 15  
Gly

<210> 73

<211> 17

<212> PRT

<213> Mus musculus

<400> 73

Ser Ile Ser Gly Ser Gly Ala Tyr Thr Tyr Tyr Ala Asp Ser Val Lys  
1 5 10 15  
Gly

<210> 74

<211> 17

<212> PRT

<213> Mus musculus

<400> 74

Val Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val Lys  
1 5 10 15  
Gly

<210> 75

<211> 19

<212> PRT

<213> Mus musculus

<400> 75

Arg Ile Lys Ser Lys Ile Asp Gly Gly Thr Thr Asp Tyr Ala Ala Pro  
1 5 10 15  
Val Lys Gly

<210> 76

<211> 19

<212> PRT

<213> Mus musculus

<400> 76

Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Val Ala Pro  
1 5 10 15  
Val Lys Gly

<210> 77

<211> 17

<212> PRT

<213> Mus musculus

<400> 77

Val Ile Trp Asn Asp Gly Ser Tyr Lys Tyr Tyr Ala Asp Ser Val Lys  
1 5 10 15  
Gly

<210> 78

<211> 17

<212> PRT

<213> Mus musculus

<400> 78

Val Ile Trp Tyr Asp Gly Ser Asn Lys Lys Tyr Ala Asp Ser Val Lys  
1 5 10 15  
Gly

<210> 79

<211> 19

<212> PRT

<213> Mus musculus

<400> 79

Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala Pro  
1 5 10 15  
Val Lys Gly

<210> 80

<211> 17

<212> PRT

<213> Mus musculus

<400> 80

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<400> 82  
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<210> 83  
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Gln Lys Tyr Asp Ser Ala Pro Trp Thr  
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